

## REMARKS

This is in response to the Office Action dated June 20, 2005. Examiner's allowance of claims 8, 10, 11, 13-35, 41, 42, and 46-92 is noted with appreciation. Examiner rejected claim 41 under 35USC103 as being unpatentable over Henson et al (US Patent 5,325,455) in view of Bierlein et al (US Patent 5,243,676).

The rejection of claim 41 is respectfully traversed. By way of historical perspective, Claim 41, as filed in the original patent application was dependent on independent claim 36. In the Office Action dated January 16, 2003, claim 36 was rejected under 35USC102(b), as being anticipated by Henson et al (US Patent No. 5,325,455). Claim 41 was objected to because it was a dependent claim but was indicated to be allowable if rewritten in independent form. This resulted in Applicants' amendment of claim 41 into its present independent form. In that same amendment, Applicants canceled claim 36 in order to speed this application to issue and not because the rejection was accepted as valid. Rather, it was always believed that claim 36 could be prosecuted to allowance in a subsequent continuation patent application. This historical perspective is significant because the current rejection of claim 41 is based on Henson et al (the primary reference originally applied against original claim 36) in view of newly cited Bierlein et al.

In the Office Action dated June 20, 2005, Examiner has interpreted Henson as disclosing a method of forming an optical coupler, the method comprising the steps of creating electrical connectors 94, attaching a waveguide 38 to the electrical connectors, encapsulating 14 at least a portion of the electrical connectors and at least a portion of the waveguide.

This rejection is reminiscent of the previous Office Action (dated January 16, 2003) and is quoted as follows: "Henson et al discloses, as in claim 36, a method of forming an optical coupler (Figures 1 and 3), the method comprising the steps of

creating electrical connectors (Figure 3, 94); attaching a waveguide to the electrical connectors (Figure 1, 38); and encapsulating (Figures 1 and 3, 14) at least a portion of the electrical connectors and at least a portion of the waveguide.” Applicants, in response to the Office Action stated that: “However, item 14 in Figure 1 is not an encapsulant but rather a frame, see for example column 4 lines 46, 64 and 68. Frame 14 is not described as an encapsulant. Thus, the step of encapsulation is not taught.” This distinction is significant not only because of the structural distinction between a frame and an encapsulant but also because it shows that the problem addressed and solved by Applicants’ invention is not suggested by Henson. By way of further distinction, the frame 14 as described in FIG. 1 of Henson holds only the optical fibers and not the conductors. In contradistinction, Applicants’ invention, by encapsulating at least a portion of the electrical connectors and at least a portion of the waveguide holds the fibers and conductors in a fixed space relationship that is different from a mere mechanical assemblage as taught by Henson et al.

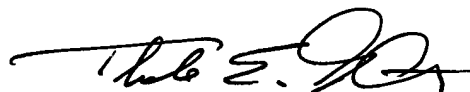
Moreover, Henson teaches that plug 16 (holding optical fibers 24) may be constructed of any durable material preferably an injection-molded polymer such as polyester liquid crystal polymer. (Col.3, lines 59-61) This shows an awareness of injection molding in general that Henson did not envision for his invention. In contradistinction to encapsulating the fibers 24 in plug 16, plug 16 is assembled in multiple parts as shown in FIGS. 7 and 8. Rather than suggest the step of encapsulation, Henson teaches away from Applicants’ step of encapsulating by describing a multi-part assembly of plug 16. The assembly of multiple parts, even if such parts are individually made from an injection-molded polymer, does not suggest Applicants’ patentably distinct: “encapsulating at least a portion of the electrical connectors and at least a portion of the waveguide”, in the context of the overall claimed combination.

In the current Office Action, Examiner cites Bierlein et al as disclosing the teaching of polishing waveguide input and output faces (col. 6, lines 20-21). It is believed that this is a teaching that can be found not only in Bierlein et al but probably other

references. Applicants do not claim as their invention the concept of polishing waveguides. Rather, claim 41 recites the step of polishing an end of a waveguide as one more feature of a combination that is taught by neither reference. Combining the two references does not provide a valid rejection under 35USC103 when both references fail at the point of novelty.

In view of the foregoing, it is believed that all the claims currently in this application are in condition for allowance. If Examiner has a question or comment or if Applicants' attorney can assist in any manner whatsoever, Examiner is respectfully requested to telephone the undersigned. In the meantime, the undersigned and one of the inventors request a personal interview with Examiner to expedite issuance of this patent. The undersigned will telephone Examiner Dinh to confirm a personal interview for the morning of October 5, 2005 or any other day during that week to be scheduled at the convenience of Examiner.

Respectfully submitted,  
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